

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-29 (canceled).

Claim 30 (currently amended): An electronic component inspection apparatus, comprising:

an inspection portion which inspects a component;

a component standby portion in which the component waits before the component is inspected by the inspection portion;

a component storage portion which stores the component after the component has been inspected;

a component transferring device which has a suction nozzle that applies suction to pick up the component and transfer the component between the component standby portion or the component storage portion and the inspection portion;

an image capturing device arranged to capture an image of the component that is being transferred by the component transferring device; and

a controlling device which transfers the component to the inspection portion, via a position in which the image capturing device captures an image of the component when the component is held by the suction nozzle and is being transferred from the component standby portion to the inspection portion, and based on a result of the captured image of the component, the controlling device controls the drive of the component transferring device so that the component is set in the inspection portion; wherein

the inspection portion, the component standby portion, the component storage portion and the image capturing device, are arranged along a line within a range of motion of the suction nozzle; and

~~The electronic component inspection apparatus according to claim 29, wherein~~
the component transferring device includes a track that extends in a direction along which the inspection portion, the component standby portion, the component storage portion and the image capturing device are disposed, and moves the suction nozzle along the track.

Claim 31 (previously presented): The electronic component inspection apparatus according to claim 30, wherein the component transferring device includes a pair of the tracks arranged substantially parallel to each other and between which the inspection portion, the component standby portion, the component storage portion and the image capturing device are disposed, and the component transferring device includes a pair of suction nozzles arranged to move along the pair of tracks.

Claim 32 (previously presented): The electronic component inspection apparatus according to claim 30, wherein two of each of the component standby portion, the component storage portion and the image capturing device are provided, and said two of each of the component standby portion, the component storage portion and the image capturing device are arranged along a line such that the inspection portion is located between each of the two component standby portions, the two component storage portions and the two image capturing devices, and the component transferring device has a pair of the suction nozzles which move along the track.

Claim 33 (previously presented): The electronic component inspection apparatus according to claim 30, wherein two of each of the component standby portion, the component storage portion and the image capturing device are provided, and said two of each of the component standby portion, the component storage portion and the image capturing device are arranged along a line such that the inspection portion is located between each of the two component standby portions, the two component storage portions and the two image capturing devices, and the component transferring

device includes a pair of the tracks arranged substantially parallel to each other and between which the inspection portion, the two component standby portions, the two component storage portions and the two image capturing devices are disposed, and the component transferring device includes a pair of suction nozzles arranged to move along the pair of tracks.

Claims 34-38 (canceled).

Claim 39 (currently amended): The electronic component inspection apparatus according to claim 31, further comprising:

a detecting device for detecting whether the suction nozzles, which move along the track, come within a close-state condition defined by a predetermined ~~pretermind~~ interval between the pair of suction nozzles; and

a collision-prevention controlling device for, based on the close-state detection by the detecting device, controlling the drive of the component transferring device, so that the suction nozzles are prevented from colliding.

Claim 40 (previously presented): The electronic component inspection apparatus according to claim 39, wherein the pair of suction nozzles moves along the track and based on the close-state detection by the detecting device, the collision-prevention controlling device moves at least one suction nozzle of the pair of suction nozzles in an opposite direction.

Claim 41 (previously presented): The electronic component inspection apparatus according to claim 39, wherein the suction nozzles each move along a pair of the tracks, and the component transferring device moves at least one suction nozzle of the suction nozzles in directions other than the directions of the tracks, and based on the close-state detection by the detecting device, the collision-prevention controlling device moves the suction nozzles in directions other than the directions of the tracks.

Claim 42 (currently amended): An electronic component inspection apparatus, comprising:

an inspection portion which inspects a component;

a component standby portion in which the component waits before the component is inspected by the inspection portion;

a component storage portion which stores the component after the component has been inspected;

a component transferring device which has a suction nozzle that applies suction to pick up the component and transfer the component between the component standby portion or the component storage portion and the inspection portion;

an image capturing device arranged to capture an image of the component that is being transferred by the component transferring device; and

a controlling device which transfers the component to the inspection portion, via a position in which the image capturing device captures an image of the component when the component is held by the suction nozzle and is being transferred from the component standby portion to the inspection portion, and based on a result of the captured image of the component, the controlling device controls the drive of the component transferring device so that the component is set in the inspection portion; wherein

The electronic component inspection apparatus according to claim 28, wherein at least one of the component standby portion and the component storage portion holds a component which is stored in a container.

Claim 43 (previously presented): The electronic component inspection apparatus according to claim 42, wherein:

the container that holds the component before the component has been inspected is positioned in the component standby portion;

the container that holds the component after the component has been inspected is positioned in the component storage portion; and
the containers are each arranged in a line along the track.

Claim 44 (previously presented): The electronic component inspection apparatus according to claim 42, further comprising a container moving device for moving the container along a horizontal plane, in directions other than the directions in which the suction nozzle moves.

Claim 45 (previously presented): The electronic component inspection apparatus according to claim 44, wherein the container moving device moves the container in directions substantially perpendicular to the directions in which the suction nozzle moves.

Claim 46 (previously presented): The electronic component inspection apparatus according to claim 44, wherein:

the container that holds the component before the component has been inspected is positioned in the component standby portion;

the container that holds the component after the component has been inspected is positioned in the component storage portion; and

the container moving device moves each of the containers independently of each of the respective component standby portion and the component storage portion.

Claim 47 (previously presented): The electronic component inspection apparatus according to claim 42, further comprising:

container storage portion in which the container is removed from and put into, the component standby portion or the component storage portion; and

a container transferring device which transfers the container between the component standby portion or the component storage portion and the container storage portion.

Claim 48 (previously presented): The electronic component inspection apparatus according to claim 47, wherein two container storage portions are provided, a respective one of the two container storage portions is provided in each of the component standby portion and the component storage portion, and the two container storage portions arranged in the respective component standby portion and the component storage portion are disposed in a line along the track.

Claim 49 (previously presented): The electronic component inspection apparatus according to claim 47, further comprising a container moving device, wherein the container moving device performs a function of the container transferring device to remove from and put into the container storage portion one of the containers.

Claim 50 (currently amended): The electronic component inspection apparatus according to claim 49, wherein the component transferring device transfers the one of the containers along the track.

Claim 51 (currently amended): The electronic component inspection apparatus according to claim 30_28, wherein the component standby portion is arranged to hold a wafer on which a chip component in a diced state defining the component is held.

Claim 52 (currently amended): The electronic component inspection apparatus according to claim 30_28, wherein:

the component standby portion places as a unit a chip component which defines the component;

wafer placement portion is provided on a side of the component standby portion and in which a wafer with the chip component in a diced state is placed, and a chip-component removal device is provided which removes and moves the chip component from the wafer placement portion to the component standby portion;

the chip-component removal device switches from a state in which the chip component is lifted from the wafer and is held face up, to a state in which the chip component is turned over from the removed state and is held face down; and

the component transferring device applies suction using the suction nozzle to the chip component which is placed face up in the component standby portion or the chip component which is placed face down by the chip-component removal device, and transfers the chip component to the inspection portion.

Claim 53 (previously presented): The electronic component inspection apparatus according to claim 51, wherein the component standby portion is arranged to hold a plurality of components that are stored in a container, and the position in which the wafer with the chip component in the diced state stands by, and the position in which the plurality of components which is stored in the container stands by, are arranged in a line along the track.

Claim 54 (currently amended): The electronic component inspection apparatus according to claim 30~~28~~, wherein:

the component storage portion includes a packaging device for providing a component storage tape which has a plurality of concave portions arranged in a line for storing in the concave portions of the component storage tape components after the components have been inspected, and for covering with a cover tape the openings of the concave portions after the components are stored therein; and

the component transferring device stores the components after the components are inspected in the concave portions of the tape.

Claim 55 (previously presented): The electronic component inspection apparatus according to claim 32, further comprising:

a detecting device for detecting whether the suction nozzles, which move along the track, come within a close-state condition defined by a pretermined interval between the pair of suction nozzles; and

a collision-prevention controlling device for, based on the close-state detection by the detecting device, controlling the drive of the component transferring device, so that the suction nozzles are prevented from colliding.

Claim 56 (previously presented): The electronic component inspection apparatus according to claim 33, further comprising:

a detecting device for detecting whether the suction nozzles, which move along the track, come within a close-state condition defined by a pretermined interval between the pair of suction nozzles; and

a collision-prevention controlling device for, based on the close-state detection by the detecting device, controlling the drive of the component transferring device, so that the suction nozzles are prevented from colliding.

Claims 57-59 (canceled).

Claim 60 (previously presented): The electronic component inspection apparatus according to claim 52, wherein the component standby portion is arranged to hold a plurality of components that are stored in a container, and the position in which the wafer with the chip component in the diced state stands by, and the position in which the plurality of components which is stored in the container stands by, are arranged in a line along the track.